

# The NVIDIA Jetson Family

For AI at the Edge and Autonomous Machines

seeed studio



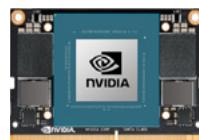
## Next-Gen: Jetson Orin

**JETSON Orin Nano 4GB**  
20 TOPS (INT8)



7 - 10W  
45mm x 69.6mm

**JETSON Orin Nano 8GB**  
40 TOPS (INT8)



7 - 15W  
45mm x 69.6mm

**JETSON Orin NX 8GB**  
70 TOPS (INT8)



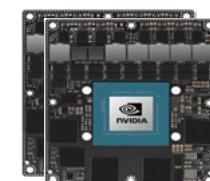
10 - 20W  
45mm x 69.6mm

**JETSON Orin NX 16GB**  
100 TOPS (INT8)



10 - 25W  
45mm x 69.6mm

**JETSON AGX Orin Series**  
275 TOPS (INT8)



15- 60W  
32GB/64GB  
100mm x 87mm

**Jetson Nano**  
0.5 TFLOPS (FP16)



5 - 10W  
45mm x 69.6mm

**JETSON TX2 NX**  
1.33 TFLOPS (FP16)



75 - 15W  
45mm x 69.6mm

**JETSON TX2 series**  
1.33 TFLOPS (FP16)



7.5 - 15W  
50mm x 87mm

**JETSON Xavier NX series**  
21 TOPS (INT8)



10 - 20W  
8GB/16GB  
45mm x 69.6mm

**JETSON AGX Xavier Series**  
32 TOPS (INT8)



10-30W  
32GB/64GB  
100mm x 87mm

source: NVIDIA

# NVIDIA®Jetson Module Compatible Carrier Boards Comparison

									
Carrier board	reComputer J101 carrier board for Jetson™ Nano	reComputer J202 carrier board for Jetson™ Nano/NX/TX2 NX	reComputer J401 carrier board for Jetson™ Orin NX/Orin Nano	A203 V2 carrier board for Jetson™ Nano /NX/TX2 NX	A205 carrier board for Jetson™ Nano /TX2 NX	A205E Carrier Board for Jetson™ Nano / Xavier NX TX2 NX	A603 carrier board for Jetson Orin™ NX/Nano	A607 carrier board for Jetson Orin™ NX/Nano	A608 carrier board for Jetson Orin™ NX/Nano
Module Compatibility	NVIDIA® Jetson™ Nano	NVIDIA® Jetson™ Nano/Xavier NX/TX2 NX	NVIDIA® Jetson™ Orin NX /Orin Nano	NVIDIA® Jetson™ Nano/ Xavier NX/TX2 NX	NVIDIA® Jetson™ Nano/ Xavier NX/TX2 NX	NVIDIA® Jetson™ Nano /Xavier NX/TX2 NX	NVIDIA® Jetson Orin™ NX/Nano	NVIDIA® Jetson Orin™ NX/Nano	NVIDIA® Jetson Orin™ NX/Nano
PCB Size / Overall Size	100mm x 80mm	100mm x 80mm	100mm x 80mm	87mm x 52mm	170mm x 100mm	115mm x 105mm	87mm x 52mm	115mm x 105mm	101.5mm x 95mm
Display	1x HDMI	1x HDMI+1x DP	1x HDMI	1x HDMI	2x HDMI	2x HDMI	1x HDMI	1x HDMI	1x DP
CSI Camera	2 x CSI	2 x CSI	2 x CSI	1x CSI	6 x CSI	1x CSI	1x 15 pins CSI Camera connect	/	2x 4 CSI Camera
Networking	1 x Gigabit Ethernet (10/100/1000M) 1 x M.2 KEY E (WiFi) (module not included)	1 x Gigabit Ethernet (10/100/1000M) 1 x M.2 KEY E (WiFi) (module not included)	1 x Gigabit Ethernet (10/100/1000M) 1 x M.2 KEY E (WiFi) (module not included)	1 x Gigabit Ethernet (10/100/1000M) 1 x M.2 KEY E (WiFi) (module not included)	2 x Gigabit Ethernet (10/100/1000M) 1 x M.2 KEY E (WiFi) (module not included)	2 x Gigabit Ethernet Connector (10/100/1000) 1 x M.2 KEY E (WiFi) (module not included) 1 x WiFi/BLE module (4 pin interface)	1 x GigabitEthernet (10/100/1000)	2 x Gigabit Ethernet (10/100/1000)	2x Gigabit Ethernet (10/100/1000)
USB	1 x USB 3.0 Type-A 2 x USB 2.0 Type-A 1 x USB Type C(Not support power input)	4 x USB 3.1 Type-A (Integrated USB 2.0) 1 x USB Type C(Not support power input)	4 x USB 3.2 Type-A (Integrated USB 2.0) 1 x USB Type C(Not support power input)	1 x USB 3.0 0.5mm pitch 20Pin ZIF 2 x USB 3.0 Type-A (Integrated USB 2.0) 1 x USB Micro B(Not support power input)	4 x USB 3.0 Type-A (Integrated USB 2.0) 1 x USB 2.0 Type C (Support OTG)	1x USB 2.0 ZIF 20P 0.5mm pitch 4x USB 3.0 Type A 1x USB 2.0 Type C	2 x USB 3.0 Type A (Integrated USB 2.0) 1 x USB 3.0 0.5mm pitch 20P ZIF 1 x USB 2.0 Micro-AB	4 x USB 3.0 Type A (Integrated USB 2.0) 1 x USB 2.0 / 3.0 Type C 1 x USB 3.0 ZIF 20P 0.5mm pitch	4x USB 3.2 Type A (Integrated USB 2.0) 1x USB 2.0+3.2 Type C
Storage Expansion	1 x TF_Card (CLK Frequency 48Mhz)	1 x M.2 KEY M	1 x M.2 KEY M	1 x M.2 KEY M 1 x TF_Card	5 x SATA 1 x TF_Card	1 x M.2 KEY M (NVMe SSD) MicroSD card slot	1 x M.2 KEY M 2242 Interface	1 x M.2 KEY M	1x M.2 KEY M
Audio	/				1 x Audio Jack 2 x Microphone interface 2 x Speaker interface	1 x Audio Jack, 2 x Speaker	/	1 x speaker Connector 1 x audio Jack	1x 3.5 Audio Jack 2x MIC 2x SPEAKER 1x SPEAKER FEEDBACK
SPI Bus	2 x SPI Bus(+3.3V Level)	2 x SPI Bus(+3.3V Level)	2 x SPI Bus(+3.3V Level)	2 x SPI Bus(+3.3V Level)	2 x SPI Bus(+3.3V Level)	1 x SPI Bus(+3.3V Level)	2 x SPI Bus	2 x SPI Bus	1x SPI BUS
Fan Connector	1 x Fan(5V PWM)	1 x Fan(5V PWM)	1 x Fan(5V PWM)	1 x Fan(5V PWM)	2 x Fan(2V/5V) 1 x Fan(5V PWM)	1 x FAN(5V PWM)	1x FAN connector(5V PWM)	1x FAN connector(5V PWM)	1x FAN(5V PWM)
CAN	/	1 x CAN	1 x CAN	1 x CAN	1 x CAN	1 x CAN	1 x CAN	1 x CAN	1x CAN (FD)
Multifunctional port	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	1 x 40-Pin	2x IIC; 7x IO 3.3V; 2x UART; 1x DEBUG; 1x POWER; 1x RESET; 1x RECOVERY
RTC	Battery not included	Battery not included	Battery not included	Battery not included	Battery not included	Battery not included	1 x RTC socket(rechargeable 3V Lithium Battery Connector)	1 x RTC socket(support rechargeable battery)	1x 3.0V RTC
Power supply	USB Type C 5V/3A (not include a power cord)	12V/5A power cord only	12V/5A power cord only	19V/4.74A power cord only	19V/4.74A power cord only	9V-36V DC	9-20V DC, 7A	12(7A) - 36V(3A) DC	9-20V(MAX 60W) DC
Operating Temperature	0°C~60°C	0°C~60°C	-10°C~60°C	-25°C ~65°C	-25°C ~80°C	-25°C ~80°C	-25°C~65°C	-25°C~75°C	-25°C to~65°C

## Jetson Nano full system comparison

Production Module	Jetson Nano		
			
Product Name	reComputer J1010	reComputer J1020 v2	NVIDIA® Jetson Nano Developer Kit-B01
SKU	<a href="#">110061362</a>	<a href="#">110061441</a>	<a href="#">102110417</a>
AI Performance	472 GFLOPS		
GPU	NVIDIA Maxwell™ architecture with 128 NVIDIA CUDA® cores		
CPU	NVIDIA Quad-core Arm® Cortex®-A57 MPCore processor		
Memory	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s		
Storage	16 GB eMMC 5.1	16 GB eMMC 5.1 1*M.2 Key M connector	microSD slot
Video Encode	1*4K30   2*1080p60   4*1080p30   4* 720p60   9* 720p30 (H.265/H.264)		1*4K30   4*1080p30   9*720p30 (H.264/H.265)
Video Decode	1*4K60   2*4K30   4*1080p60   8*1080p30   9*720p60 (H.265/H.264)		1*4K60   2*4K30   8*1080p30   18*720p30 (H.264/H.265)
Networking	1*RJ45 Gigabit Ethernet Connector (10/00/1000)		
USB	1*USB 3.0 Type A 2*USB 2.0 Type A 1*USB Type-C for device mode 1*USB Type-C for 5V power input	4*USB 3.0 Type-A 1*USB Type-C for device mode	4*USB 3.0 Type-A 1*USB 2.0 Micro-B for device mode
CSI Camera	2*CSI camera connectors (15 pos, 1mm pitch, MIPI CSI-2 )		
Display	1*HDMI 2.0 Type A	1*HDMI 2.0 Type A 1*DP	1*HDMI 2.0 Type A 1*DP
Fan	1*Fan Connector(5V PWM)		
M.2 Key E	1*M.2 Key E connector to support WiFi/BT	1*M.2 Key E (disabled)	1*M.2 Key E connector to support WiFi/BT
Multifunctional header	1*40-Pin header (GPIO, I2C, I2S, SPI, UART)		
Power Adapter	USB Type-C 5V/3A	DC Barrel Jack 12V/2A	DC Barrel Jack 5V/4A Micro-USB 5V/2A
Power	5W   10W		
Dimensions	130mmx120mmx50mm (with case)	130mmx120mmx50mm(with case)	100mmx80mmx29mm

## Jetson Xavier NX full system comparison

Production Module	Jetson Xavier NX								
									
Product Name	reComputer J2021	reComputer J2022	reComputer Industrial J2011	reComputer Industrial J2012	reServer J2032				
SKU	<a href="#">J10061381</a>	<a href="#">J10061402</a>	<a href="#">J10110188</a>	<a href="#">J10110189</a>	<a href="#">J10061403</a>				
AI Performance	21 TOPS								
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores								
CPU	6-core NVIDIA Carmel ARM® v8.2 64-bit CPU, 6MB L2 + 4MB L3								
Memory	8 GB 128-bit LPDDR4 x 59.7GB/s	16 GB 128-bit LPDDR4x 59.7GB/s	8GB 128-bit LPDDR4 x 59.7GB/s	16GB 128-bit LPDDR4 x 59.7GB/s	16 GB 128-bit LPDDR4x 59.7GB/s				
Storage	16 GB eMMC 5.1 1*M.2 Key M connector	16GB eMMC 5.1, M.2 Key M PCIe Gen4.0 SSD (M.2 NVMe 2280 SSD 128G included)		16 GB eMMC 5.1 256GB SATA III SSD 2* SATA III data connectors 2* SATA III power connectors					
Video Encode	2*4K60   4*4K30   10*1080p60   22*1080p30 (H.265); 2*4K60   4*4K30   10*1080p60   20*108p30 (H.264)								
Video Decode	2*8K30   6*4K60   12*4K30   22*1080p60   44*1080p30 (H.265); 2*4K60   6*4K30   10*1080p60   22*1080p30 (H.264)								
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)	1* LAN1 RJ45 GbE PoE(PSE 802.3 af 15 W) 1* LAN2 RJ45 GbE (10/100/1000Mbps) Optional WiFi/Bluetooth module support		1*RJ45 GbE; 1*RJ45 2.5GbE 1*M.2 Key B connector to support 5G/4G 1*Mini PCIe connector to support LoRa/Series wireless; 1*Sim card slot					
USB	4*USB 3.1 Type A Connector; 1*USB Type-C for device mode	3* USB3.2 Gen1, 1* USB2.0 Type C(Device mode), 1* USB2.0 Type C For Debug UART & RP2040		2*USB 3.1 Gen 2 Type A connector 1*USB Type-C for device mode 1*USB Type-C for RP2040 Coprocessor					
CSI Camera	2*CSI camera connectors (15 pos, 1mm pitch, MIPI CSI-2)	2*CSI (2-lane 15pin)		-					
Display	1*HDMI 2.0 Type A; 1*DP	1*HDMI 2.0 Type A		1*HDMI 2.0 Type A; 1*DP1.4					
Fan	1*Fan (5V PWM)	Fanless, passive heatsink; 1*Fan connectors(5V PWM)		1*Jetson Xavier NX Fan (5V PWM) 1* Main Fan (12V)					
M.2	1*M.2 Key E connector to support WiFi/BT	M.2 Key B support 4G/5G (Module optional)		-					
Mini PCIe	-	1* Mini PCIe for 4G/LoRa		-					
Multifunctional header/IO	1*40-Pin header (GPIO, I2C, I2S, SPI, UART)	DI/DO/CAN/RS232, RS422 and RS485/TPM 2.0 header		-					
Power Adapter	DC Barrel Jack 12V/5A (5.5/2.1mm)	19V Power Adapter(without power cord)		DC Barrel Jack 12V @5A					
Dimensions	130mmx120mmx50mm (with case)	159mm x 155mm x 57mm		132mmx124mmx233mm (with case)					

## Jetson Xavier NX full system comparison

Production Module	Jetson Xavier NX			
Product Name	A203	A205 E	T506S	Jetson Sub Black
SKU	<a href="#">114110147</a>	<a href="#">114110148</a>	<a href="#">114110167</a>	<a href="#">102110641</a>
AI Performance	21 TOPS			
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores			
CPU	6-core NVIDIA Carmel ARM® v8.2 64-bit CPU, 6MB L2 + 4MB L3			
Networking	1*RJ45 GbE (10/100/1000) 1*Sim card slot	1*RJ45 GbE (10/100/1000) 1*WiFi/ BLE module	4*PoE(PSE) GbE Ports 1*PoE(PD) GbE Port	2*RJ45 GbE (10/100/1000) 1*WiFi module
Memory	8 GB 128-bit LPDDR4x 59.7GB/s			
USB	2*USB3.0 Type A 1*USB 2.0 Micro-B for device mode	4*USB 3.0 Type A 1*USB 2.0 Type C for device mode	4*USB 3.0 Type A 1*USB 2.0 Micro-B (OTG) for device mode	4*USB 3.0 Type-A (Integrated USB 2.0) 1*USB 2.0 Micro-B (OTG) for device mode
Camera	1*CSI camera connector (15 pos, 1mm pitch, MIPI CSI-2 )	MIPI connector compatible with MIPI CSI and GMSL	-	6*camera connectors (15 pos, 1mm pitch, MIPI CSI-2 )
Display	1*HDMI 2.0 Type A	2*HDMI 2.0 Type A	1*HDMI 2.0 Type A	2*HDMI 2.0 Type A
M.2 Key E	1*M.2 Key E connector to support WiFi/ BT (module included)	-	1*M.2 Key E connector to support 5G	1*M.2 Key E connector
mini PCIe	/	/	1*Mini PCIe connector to support 4G	/
IO	1*RS232, 1*CAN, 2*SPI, 2*I2C Link(+3.3V I/O), 5*GPIO, 1*I2S(3.3V Level)	1*RS485, 1*RS232, 1*CAN, 1*SPI Bus(+3.3V Level), 2*I2C Link(+3.3V I/O), 1*GPIO	1*RS485, 1*RS232, 1*CAN 2.0b, 1*I2C, 4*GPIO	1*UART, 1*CAN, 2*SPI Bus(+3.3V Level), 2*I2C Link(+3.3V I/O), 2*GPIO
Multifunctional header	1*40-Pin header (GPIO, I2C, I2S, SPI, UART)	/	/	1*40-Pin header (GPIO, I2C, I2S, SPI, UART, CAN)
FAN	1* Fan (5V PWM)	Fanless, passive heatsink	Fanless, passive heatsink	Fanless, passive heatsink
Power Input	9V - 19V DC	9V - 36V DC	12-36V DC	13-20V DC
Power Adapter	DC 19V 4.74A (MAX 90W)	DC Jack 19V 4.74A (MAX 90W)	DC Jack 19V 3.42A	DC Jack 19V 4.74A (MAX 90W)
Dimensions	100mm x 50mm x 59mm (with case)	209mm x 130mm x 66 mm (with case)	155mm x 165mm x 52.5mm (with case)	205mm x 130mm x 65mm (with case)
Operating temperature	-20°C~ 80°C, 0.2~0.3m/s air flow	-20°C~ 65°C, 0.2 ~ 0.3m/s air flow	-20°C ~ 65°C	-25°C ~ +80°C
Operating System	Pre-installed JetPack 5.0.2	Pre-installed JetPack 5.0.2	Pre-installed JetPack 4.6	Pre-installed JetPack 4.6

## Jetson AGX Xavier full system comparison

Production Module	Jetson AGX Xavier	
Product Name	Jetson AGX Xavier H01 Kit	NVIDIA® Jetson AGX Xavier Developer Kit
SKU	<a href="#">110991666</a>	<a href="#">102110406</a>
AI Performance	32TOPS	
GPU	NVIDIA Volta™ architecture 512 NVIDIA CUDA® and 64 Tensor cores	
CPU	8-core NVIDIA Carmel Arm® v8.2 64-bit CPU 8MB L2 + 4MB L3	
Memory	32 GB 256-bit LPDDR4x 136.5GB/s	
Storage	32 GB eMMC 5.1 SD/UFS and microSD card slot; 1*M.2 Key M connector	32 GB eMMC 5.1; microSD card slot eSATA port; 1*M.2 Key M connector
Video Encode	4*4K60   8*4K30   16*1080p60   32*1080p30 (H.265) 30*1080p30 (H.264)	2*4K60   HEVC / (2x) 4K60   12-Bit Support
Video Decode	2*8K30   6*4K60   12*4K30   26* 1080p60   52*1080p30 (H.265) 30*1080p30 (H.264)	2*4K60   HEVC / (2x) 4K60   12-Bit Support
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)	
USB	2*USB 3.0 Type-A; 1*USB 2.0 Type-C for device mode	1*USB 3.1 Type-A; 1*USB Type-C for device mode/ debug; 1*USB Type-C; 1*USB 2.0 Micro-B for debug
Camera	Camera connector(Compatible with MIPI CSI and GMSL)	
Display	1x HDMI2.0 Type A	
Fan	1*12V Fan	
M.2 Key E	1*M.2 Key E connector	
PCIe	PCIe X16 (x8 PCIe Gen4 / x8 SLVS-EC)	
Multifunctional header	1*40 Pin header	
Power Adapter	DC Jack 19V 4.74A (MAX 90W)	
Power	10W   15W   30W	
Dimensions	130mmx105mmx77mm(with case)	105mmx105mmx65mm

## Jetson Orin full system comparison

Production Module	Jetson Orin Nano				Jetson Orin NX				Jetson AGX Orin
									
Product Name	reComputer J3010	reComputer J3011	reComputer Industrial J3010	reComputer Industrial J3011	reComputer J4011	reComputer J4012	reComputer Industrial J4011	reComputer Industrial J4012	Mini AI Computer T906
SKU	110110146	110110147	110110192	110110193	110110144	110110145	110110190	110110191	114110168
Module	Jetson Orin Nano 4GB	Jetson Orin Nano 8GB	Jetson Orin Nano 4GB	Jetson Orin Nano 8GB	Jetson Orin NX 8GB	Jetson Orin NX 16GB	Jetson Orin NX 8GB	Jetson Orin NX 16GB	Jetson AGX Orin 32GB
AI Performance	20 TOPS	40 TOPS	20TOPS	40TOPS	70 TOPS	100 TOPS	70TOPS	100TOPS	200 TOPS
GPU	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	NVIDIA Ampere architecture with 1024 NVIDIA® CUDA® cores and 32 tensor cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	1792-core NVIDIA Ampere architecture GPU with 56 Tensor Cores		
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3; 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3	
Memory	4GB 64-bit LPDDR5 34 GB/s	8GB 128-bit LPDDR5 68 GB/s	4GB 64-bit LPDDR5 34 GB/s	8GB 128-bit LPDDR5 68 GB/s	8GB 128-bit LPDDR5 102.4 GB/s	16GB 128-bit LPDDR5 102.4 GB/s	8GB 128-bit LPDDR5 102.4 GB/s	16GB 128-bit LPDDR5 102.4 GB/s	32GB 256-bit LPDDR5 204.8 GB/s
Storage	1*M.2 Key M (128GB NVMe SSD included)	M.2 Key M PCIe Gen4.0 SSD (M.2 NVMe 2280 SSD 128G included)			1*M.2 Key M (128GB NVMe SSD included)	M.2 Key M PCIe Gen4.0 SSD (M.2 NVMe 2280 SSD 128G included)			64GB eMMC 5.1 1*M.2 Key M connector
Video Encode	1080p30 supported by 1-2 CPU cores	1080p30 supported by 1-2 CPU cores			1*4K60   3*4K30   6*1080p60   12*1080p30 (H.265) H.264, H.265, AV1	1*4K60 (H.265)   3*4K30 (H.265)   6*1080p60 (H.265)   12*1080p30 (H.265)			1*4K60   3*4K30   6*1080p60   12*1080p30 (H.265)
Video Decode	1x 4K60   2x 4K30   5x 1080p60   11x 1080p30 (H.265)	1*4K60 (H.265)   2*4K30 (H.265)   5*1080p60 (H.265)   11*1080p30 (H.265)			1*8K30   2*4K60   4*4K30   9*1080p60   18*1080p30 (H.265) H.264, H.265, VP9, AV1	1*8K30 (H.265)   2*4K60 (H.265)   4*4K30 (H.265)   9*1080p60 (H.265)   18*1080p30 (H.265)			1*8K30   2*4K60   4*4K30   9*1080p60   18*1080p30 (H.265) H.264, H.265, VP9, AV1
Networking	1*RJ45 Gigabit Ethernet Connector (10/100/1000)	1* LAN1 RJ45 GBE PoE(PSE 802.3 af 15 W) 1* LAN2 RJ45 GBE (10/100/1000Mbps)Optional WiFi/Bluetooth module support			1*RJ45 Gigabit Ethernet Connector (10/100/1000)	1* LAN1 RJ45 GBE PoE(PSE 802.3 af 15 W) 1* LAN2 RJ45 GBE (10/100/1000Mbps)Optional WiFi/Bluetooth module support			1*RJ45 GBE (10/100/1000) 1*RJ45 GBE 1*M.2 Key B connector for WiFi 1*Sim card slot; 1*GPS module
USB	4*USB 3.2 Type-A 1*USB Type C for device mode	3*USB3.2 Gen1, 1* USB2.0 Type C(Device mode), 1* USB2.0 Type C For Debug UART & RP2040			4*USB 3.2 Type-A 1*USB Type C for device mode	3* USB3.2 Gen1, 1* USB2.0 Type C(Device mode), 1* USB2.0 Type C For Debug UART & RP2040			4*USB 3.0 Type A 1*USB 2.0 Type-C for device mode 1*USB 2.0 Type-C for debug
Camera	2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2 )	2* CSI (2-lane 15pin)			2*CSI Cameras (15 pos, 1mm pitch, MIPI CSI-2 )		2* CSI (2-lane 15pin)		GMSL 2 camera connector (compatible with GMSL1)
Display	1*HDMI	1*HDMI 2.0 Type A			1*HDMI		1*HDMI 2.0 Type A		1*HDMI 2.0 Type-A
Fan	1* Fan(5V PWM) (Fan included)	Fanless, passive heatsink			1* Fan(5V PWM) (Fan included)		Fanless, passive heatsink		2* Fan(5V PWM)
M.2	1*M.2 Key E (WiFi/Bluetooth included)	M.2 Key B support 4G/5G (Module optional)			1*M.2 Key E		M.2 Key B support 4G/5G (Module optional)		1*M.2 Key E
Mini PCIe	/	1* Mini PCIe for 4G/LoRa			/		1* Mini PCIe for 4G/LoRa		1*Mini PCIe connector for 4G
Multifunctional header / IO	1*40-Pin header	DI/DO/CAN/RS232, RS422 and RS485/TPM 2.0 header			1*40-Pin header		DI/DO/CAN/RS232, RS422 and RS485/TPM 2.0 header		3*CAN (with CAN chip) 2*GPIO 2*RS-232 D-SUB9 1*RS232 for time sync
Power	7W - 10W	7W - 15W	7W-10W	7W-15W	10W - 20W	10W - 25W	10W - 20W	10W - 25W	15W - 40W
Power Adapter	DC Jack 12V 5A	19V Power Adapter(without power cord)			DC Jack 12V 5A		19V Power Adapter(without power cord)		DC Jack 19V 4.74A
Dimensions	130mmx120mmx50mm (with case)	159mm x 155mm x 57mm			130mmx120mmx50mm (with case)		159mm x 155mm x 57mm		196.7mmx196mmx74mm

## Jetson Orin full system comparison

Production Module	Jetson Orin Nano		Jetson Orin NX			
						
Product Name	reServer Industrial J3010	reServer Industrial J3011	reServer Industrial J4011	reServer Industrial J4012		
SKU	<a href="#">114110250</a>	<a href="#">114110249</a>	<a href="#">114110248</a>	<a href="#">114110247</a>		
Module	Jetson Orin Nano 4GB	Jetson Orin Nano 8GB	Jetson Orin NX 8GB	Jetson Orin NX 16GB		
AI Performance	20 TOPS	40 TOPS	70 TOPS	100 TOPS		
GPU	512-core NVIDIA Ampere architecture GPU with 16 Tensor Cores	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores				
CPU	6-core Arm® Cortex®-A78AE v8.2 64-bit CPU			8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3		
Memory	4GB 64-bit LPDDR5 34 GB/s	8GB 128-bit LPDDR5 68 GB/s	8GB 128-bit LPDDR5 102.4GB/s	16GB 128-bit LPDDR5 102.4GB/s		
Storage	M.2 Key M (2280) PCIe Gen4.0 SSD (M.2 NVMe SSD 128G included)					
Video Encode	1080p30 supported by 1-2 CPU cores		Standards supported: H.265 (HEVC), H.264, AVI 1*4K60 (H.265)   3*4K30 (H.265)   6*1080p60 (H.265)   12*1080p30 (H.265)			
Video Decode	Standards supported: H.265 (HEVC), H.264, VP9, AVI 1*4K60 (H.265)   2*4K30 (H.265)   5*1080p60 (H.265)   11*1080p30 (H.265)		Standards supported: H.265 (HEVC), H.264, VP9, AVI 1*8K30 (H.265)   2*4K60 (H.265)   4*4K30 (H.265)   9*1080p60 (H.265)   18*1080p30 (H.265)			
Networking	1* LAN0 RJ45 GbE (10/100/1000Mbps); 4* LAN RJ45 GbE PoE(PSE 802.3 af 15 W, 10/100/1000Mbps)					
USB	4* USB3.2, 1* USB2.0 Type C(Device mode), 1* USB2.0 Type C For Debug UART & RP2040					
Display	1*HDMI 1.4 Type A 3840x2160 at 30 Hz		1*HDMI 2.1 Type A 7680x4320 at 30 Hz			
Fan	Fanless, passive heatsink; 1*Fan connectors(5V PWM)					
M.2 Key B	M.2 Key B (3042/3052) support 4G/5G (Module optional)					
Mini PCIe	Mini PCIe for LoRaWAN®/4G/Series Wireless (Module optional)					
Multifunctional header / IO	2 Drive Bays to support 2.5" SATA HDD/SSD(SATA III 6.0Gbps); 1* Nano SIM card slot 4*DI,4*DO,3*GND_DI,2*GND_DO,1*GND_ISO,1*CAN; 1* DB9 (RS232/RS422/RS485)					
Power Adapter	19V Power Adapter(Without power cord)					
Dimensions	194.33mm x 187mm x 95.5mm					